

**References from Testimony of Dr. Suzanna Dillon, C.A.P.E., of Wayne State University
To the Michigan House Education Committee on September 16, 2010
Specific to House Bill No. 4923**

Above and beyond the documented benefits of regular participation in physical education and physical activity for children and youth that have been presented by my physical education colleagues, I would like to speak to you today about the critically important benefits afforded to Michigan's students with disabilities when they are receive regularly mandated opportunities to participate in a quality physical education program across their K-12 experience.

Quoting the June 2010 findings of the United States Government Accountability Office:

The health and social benefits of physical activity and athletic participation for children are *well established*. These benefits may be even more important for children with disabilities, including those with cognitive and physical disabilities who have a greater risk of being sedentary and having associated health conditions, such as obesity and reduced cardiovascular fitness. Studies have shown that for students with disabilities, regular physical activity may help control or slow the progression of chronic disease, improve muscular strength, control body weight, and enhance students' psychological well-being through additional social ties and improved self-confidence and self-esteem (p.1).

As such, the House Bill 4923 provisions for a minimum of at least 30 minutes of physical education at least two days per week for the entire school year for grades K to 5; and at least 45 minutes of physical education every school day for at least 1 semester the public school year for grades 6 to 8 serve to provide multiple benefits:

- Mandated minimums for the amount and frequency of physical education will make it easier for Michigan's districts to develop, implement, and monitor physical education programs required for all students with disabilities. This will increase the number of school districts' compliant with the federal and state code.
- This is critically important given the fact that "special education" clearly requires physical education for students with disabilities.
 - Special Education as defined by the federal government (and State educational code) means specially designed instruction, at no cost to parents, to meet the unique needs of an individual with a disability, including:
 - Instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings and
 - Instruction in physical education (as a direct instructional service)
- The federal regulations expects that physical education services be provided to ALL students with disabilities and clearly defines physical education as "the development of:
 - Physical and motor fitness;
 - Fundamental motor skills and patterns; and
 - Skills in aquatics, dance, individual and group games, and sports (including intramural and lifetime sports)". [34 C.F.R. 300.13 (b) (9)]
- Clarity in the federal and state legislation is still being overlooked by many school districts across Michigan – mandating a minimum amount of physical education for the students of Michigan will assist local education agencies with being compliant with the mandates of special education.
 - Additional examples and details available.

The provisions that ensure that class size for physical education classes will be consistent with the class size for other subject areas and other classrooms:

- Facilitates successful inclusion of students with disabilities in general physical education.
 - For many special education students, inclusion in to the “specials” classes, including physical education, is their only opportunity to participate in classes with their non-disabled peers.
 - In order for these students with disabilities to have their individual learning needs addressed, physical education classes must be appropriately sized so that the physical educator can accommodate for and meet the individual needs of each student.
- Unfortunately, in many school districts in the Detroit metropolitan area, class sizes of 50 to 60 elementary students in a small elementary sized gymnasium are becoming more and more common. These excessively large class sizes negatively impact the quality of the learning environment, create numerous safety issues and, for students with disabilities, prohibit the physical educator from meeting individual learning needs.

The provisions that establish guidelines for physical education that are consistent with the State’s physical education content standards, grade level content expectations, the state board’s policy on quality physical education, and the best available scientific research concerning physical education:

- These guidelines will help districts develop, implement and monitor quality physical education programs for students with disabilities. It will also assist the with identifying those special education students who may require additional support and assistance through adapted physical education; a special education-reimbursable service.

Benefits to students with disabilities

- All Americans, including those with disabilities, gain health-related fitness benefits from regular participation in physical activity. Unfortunately, many individuals with disabilities face multiple barriers to participation in physical activity opportunities and as a result are nearly twice as physically inactive (25.6%) than their non-disabled peers (12.8%) (Centers for Disease Control and Prevention (CDC), 2005).
- To this end, the 2005 U.S. Surgeon General’s *Call to Action to Improve the Health and Wellness of Persons with Disabilities* emphasized a need for individuals with disabilities to have “accessible, available and appropriate” wellness promotion services from organization in the private and public sector including public schools (United States Department of Health and Human Services (US DHHS), 2005, pg.v). Through regular participation in physical activity, individuals with disabilities can maintain or improve physical fitness and gain health benefits such as a reduced risk from premature death, obesity, cardiovascular disease, type-2 diabetes and stroke; an increase in bone density; and improved psychological well-being.
- For school-aged children and youth with disabilities, the barriers to physical activity opportunities and the higher rates of inactivity hold true as well (Rimmer, 2008). Within the public schools, students with disabilities face individual and systemic or district wide barriers that perpetuate inadequate physical education (PE) participation, resulting in higher rates of sedentary behaviors than their non-disabled peers. These barriers (e.g., inaccessible facilities, unqualified instructors, and a lack of knowledge among administrators) regularly prevent children and youth with disabilities from participating in appropriate PE experiences, school-based sport programs and school-supported physical activity programs (Rimmer & Rowland, 2007).
- Additionally, research indicates that people with disabilities are significantly less active than people without disabilities and over half of adults with disabilities abstain from any form of leisure-time physical activity (CDC, 2007; US DHHS, 2004). To ensure appropriate physical education and activity experiences, federal laws such as IDEA/IDEIA were enacted which

mandate PE and extracurricular sport programs for students with disabilities. Enacting a state mandated minimum for participation in physical education will assist districts in developing, implementing and monitoring physical education programming for students with disabilities compliant with IDEA/IDEIA (2007).

- From Dillon, S. R., Martinez, D., & Aenchbacher, A. (2010).

Benefits to ALL children and youth:

- In their research evaluating the fitness and physical activity levels of 3 million Texas students in the Texas
- Youth Fitness Study, Morrow et al., found that higher physical fitness test achievement is related to higher state academic test scores and higher attendance, fewer negative school incidents and overall school quality, as indicated by the state ranking system (exemplary, recognized, acceptable, or unacceptable).
 - *Research Quarterly for Exercise and Sport*, 81(3).
- Current brain science has established how the brain's cerebellum is critically involved in the development of long-term memory, attention, impulse control, spatial perception and the cognitive function of brain's frontal lobe. As such, it is important to balance the needs of Michigan's students across the school day – striking a balance between physical activity afforded through physical education and the physical inactivity of the classroom.
- Physical activity enhances brain functioning and improves learning, yet some schools have chosen these times of economic difficulty and high educational accountability to both eliminate or reduce physical education classes and recess periods. This is contraindicated since research shows that physical activity actually increases oxygen in the brain which directly and significantly affects cognitive performance.
- Given the research, physical education programs should be a part of every student's academic schedule. Not only does regular physical activity in physical education hold potential to improve brain function it also holds promise to stave off health-related diseases such as Type II Diabetes.
 - Jensen, E. P. (2008). A Fresh Look at Brain-Based Education. *Phi Delta Kappan*, 89 (6), 408-417.
- In an attempt to address the growing rate of health-related diseases and issues, the Michigan Surgeon General, Dr. Kimberly Wisdom has called on Michigan schools to:
 - Assess school health policies to make sure they support healthy eating and physical activity, AND
 - Adopt a physical education curriculum, and provide other opportunities for physical activity during and after school.
- Dr. Wisdom has also called on Michigan's local communities to engage policy-makers, from across the state, in the process of establishing a clear health focus within the community including the community schools.
 - *The Michigan Surgeon General's Prescription for a Healthier Michigan*. (2004).
- Michigan's Governor's Council on Physical Fitness, Health and Sport documents the evidence-based case for investing in physical activity opportunities, including school-based physical education, for Michigan's residents. Given the current status of our citizens, Michigan faces severe health and economic consequences as a result of physical inactivity.
 - Governor's Council on Physical Fitness, Health and Sport. (2004). *Executive Summary of the Economic Cost of Physical Inactivity in Michigan*.

- While many schools are reducing physical activity because of time constraints created by the No Child Left Behind Act, a large group of studies has linked physical activity with cognition.
- Research has revealed that exercise is highly correlated with neurogenesis, or the production of new brain cells; and that neurogenesis is correlated with improved learning and memory. In addition, neurogenesis appears to be inversely correlated with depression.
- This research would suggest that educators and policy makers might want to foster neurogenesis through physical education. Unfortunately, educators and policy makers can't "see the new brain cells being produced" and continue to focus instead on the assessment driven subjects.
- The current high-stakes testing environment means some educators and administrators are eliminating physical education and even recess from the daily schooling. The value of exercise to the brain is clear and has been highlighted in *Newsweek*; as well as through studies in *The Journal of Exercise*, *Pediatric Exercise Science*, and *The Journal of Exercise Physiology Online*. The weight of the evidence is that exercise is strongly correlated with increased brain mass, better cognition, mood regulation, and new cell production and this information was not known a generation ago.
 - Jensen, E. P. (2010).